Cultivating CPs has many Surprises

by

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I became interested in carnivorous plants in the late 60's, when I noticed and bought *Dionaea muscipula* kits at a supermarket. Unfortunately, the rhizome quality at that time was not adequateæthe "bulbs" molded or did not grow. I tried again in the mid/late 70's, when I bought one *Dionaea* package from Plant Oddities at the supermarket. That one grew well in a screened house porch. But, during the fall, when the temperature at night was $40^{\circ}F$, the plant either died or became dormant. I discarded it because of ignorance and disappointment. A growing hiatus occurred due to life's many unexpected twists, until I saw a catalog advertising CPs from Peter Pauls Nurseries, and at Home Depot's gardening section. I was determined to become a successful CP grower. The path took me from a reawakening in gardening "regular" plants, to where I am now a proud and happy member of the I.C.P.S.

I can concur with T. W. Hanley's writings on the difficulties finding reliable information on CPs (C.P.N., 24:35, 1995). It took persistence and research to obtain such facts. It also involved proper equipment, cultural-conditions simulation, complications and insect pest controls, as well as being alert to your CPs growth patterns. I come from the east coast where some people garden as a hobby. The library has an extensive gardening section and a few CP books. My thirst for knowledge continued until it led me to the I.C.P.S. and the Secretary/Treasurer, Kevin Snively, who graciously provided me with crucial requirements on CPs. Two nurseries, Peter Pauls and California Carnivores, provided pivotal advice on pest management and other CP

factors.

When I first received my *Dionaea* from the former nursery, I put them in the house and inadvertently gave them inadequate light. The plants did not grow well. I then put them outside and moved them for optimal sunshine and they became stressed. I purchased a 10 gallon terrarium and kept them outside with decent ventilation-they further languished. I then put them on the porch with the same tank setup and there was little improvement. It seemed the more I tried to reproduce their native environment, the more my *Dionaea* said to me, "You are wrong"

After much thought and consultation, I got a glass top and double tube hood light system from a pet shop along with Grolux bulbs. My *Dionaea* were on their way on the road of recovery! Finally, a third side light was added with a timer. The plants began to behave normally and responded nicely! A foliar feeding with appropriately diluted Miracid for a couple of weeks accelerated their "nursing period". There was one casualty and that was in part due to the plant's retaining the inflorescence stalk for most of its life.

With such encouragement, I expanded my collection from Home Depot's gardening section. I have what I believe is a *D. rotundifolia*, *S. rubra*, *S. purpurea* ssp. *venosa*, and *S. purpurea* ssp. *purpurea* var. *heterophylla*. The latter was given to a woman acquaintance at a local college to repay professional favors; and is doing fine so far. The *S. rubra* also had to be nursed with misting and diluted fertilizer due to its droopy condition since its clear plastic cover was removed at H. D.'s nursery. Dead leaves were also pruned away. That plant recovered well. All plants listed were moistened with filtered wateræno plain tap water was used.

Setbacks then developed. I tried to grow *Dionaea* seeds with no luck. They must indeed have bright light and warmth to germinate. A mild white fly infestation occurred. I placed a marigold in the tank which seemed to help. Orthene was finally

used to resolve the problem. Worse was a moderate thrips invasion that apparently came later. I took stronger measures to obliterate this setback. I put my plants into another 10 gallon container and soaked them with water which had stood for two days to dechlorinate. The sundew was submerged in water for only two hours. The plants were taken out from that treatment and placed indoors with a 'regular' Grolux bulb. They were misted with an approximate 30% filtered water and 70% filtered rain water, twice a day for one week. They were sprayed with a more potent Orthene dose (1/4 teaspoon) with 1-3 drops of laundry detergent or/and 1-2 drops of lubricating oil with filtered water in another 8 ounce bottle. The plants were put back into their home tank and cleaned and fumigated with the specified pesticide The plants were also sprayed about two weeks later in the tank to completely end that nightmare. Whatever thrips were left sought refuge in the *S. purpurea* ssp. *venosa* pitchers, only to become a tasty meal.

At the same time, emergency surgery was done for two Dionaea in a salad bowl pot that had long fiber Sphagnum moss dressing which appeared to be the major cause of the problem. The plants root system was carefully taken out of the old medium and wrapped gently in separate paper towels, moistened with filtered water to reduce shock. A peat pot and a standard 3" pot were then used and the following was done: The long fiber Mossier-Lee Sphagnum moss was put in each of the pot's bottoms to serve as a drainage regulator, easier soil remover, and wick for the plants. The moss was then sprayed with room temperature filtered rain water and tap water combination as above. The moss readily absorbed the liquid without soaking in that product for 1-2 weeks. A shortcut was now discovered! Peat moss and New Era's shredded peat moss were added to both pots and misted accordingly. The Dionaga were planted in the pots and moistened with filtered water from the rain water spraying device. After two months of intensive care procedures consisting of cautious fertilizing/feeding program and misting/foliar spraying, the leaves of both plants survived to resume their vigorous growth phase. The peat pot *Dionaea* was given to a day care center to make room for another CP where so far it is still surviving. Further, all plants have napkins in their saucers to function as a sponge and root cushion for any root tips that would grow out of the pot holes. During the fall the sampled CPs had another mild onset of white fly problems, but this time most of the pests sought to hide in the S. rubra pitchers and become a meal. Later, unidentified egg cases or pupae from an insect pest appeared in the CP soil and were removed with tweezers. Strangely enough, the CP stopped growing until the problem was solved. About early November, a catastrophe literally hit the CPs The top cover accidentally was dropped on them! Luckily, there was little damage and what foliage was injured was pruned away. For the S. purpurea ssp. venosa, the ala was left to maintain its approximate photosynthetic processes level.

Due to the various shocks and complications of my CPs they were put into dormancy on January 22 of this year. Only the double tube light system is engaged with an achievement of 8 hours photoperiod. I will gradually increase that length of time on a weekly basis according to the calendar. The last battle will be to pot up the CPs in mid-March to early April, give them a shorter growing time, then put them into full dormancy with a lower temperature by November 15.

My CPs are given a diet according to their individual needs: Flies, spiders, small ants, nymph mole crickets, centipedes and occasional earwigs. To get them started or to treat sick plants, 1/8-3/16 teaspoon of Miracid was placed in an 8 ounce spray bottle. Using the pesticide bottle, about 3/16 teaspoon of Benomyl with a little sulfur was added to make an effective fungicide at a repeated dosage of 3-5 days intervals.

Overall, the results from this rollercoaster ride with my CPs are positive. Despite one plantlet of *Dionaea* that died due to lack of light, a *Dionaea* and *S. purpurea* have plantlets. A green *Dionaea* routinely produces more than the standard three trigger hairs arrangement-one time producing six bifurcate hairs on the two lobes! Two other *Dionaea* have occasional fourth hair development on the lobes with colorful traps, with one having bicolored (yellow and red) edge trapping hairs! The sundew readily flowered and produced hibernacula, while the *S. rubra* grows tall and happily.

So growing CPs is full of surprises and many of them can be pleasant ones!